016274872 **Image available**
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Continuous recovery of tartaric acid from tartrate-containing materials, especially waste products from wine making, includes decantation before microfiltration

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US 20040232078	A1	20041125	US 2004789704	A	20040226	200478

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Patent Details:

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Abstract (Basic): DE 10308045 B3

NOVELTY - Continuous recovery of tartaric acid from material containing at least 5 wt.% potassium hydrogen tartrate comprises suspending material in water, decanting the suspension, subjecting the clarified liquid to microfiltration, cooling the filtrate under vacuum, centrifuging the potassium hydrogen tartrate crystals, dissolving the crystals in water, removing potassium from the solution by ion exchange, and evaporating the solution to form tartaric acid crystals.

DETAILED DESCRIPTION - An INDEPENDENT CLAIM is also included for apparatus for carrying out a process as above, comprising a heatable suspension vessel (1) with a stirrer, a decanter (5) with a discharge screw or sieve, a ceramic microfiltration unit (12) with a pore size of 0.05-0.6 micro meters, a crystallizer (15), a centrifuge (19), a heatable tartrate dissolver vessel (22), a cation exchanger (27) and an evaporator (30).

USE - For recovery of tartaric acid from tartrate-containing materials, especially waste products from wine making, e.g. yeast and/or tartar.

ADVANTAGE - Decantation before microfiltration results in a filter cake that does not interfere with filtrate formation.

DESCRIPTION OF DRAWING(S) - The drawing is a flow diagram of the process.

Suspension vessel (1)
Decanter (5)
Microfiltration unit (12)
Crystallizer (15)
Centrifuge (19)
Dissolver vessel (22)
Cation exchanger (27)

Evaporator. (30)
pp; 5 DwgNo 1/1

Technology Focus:

TECHNOLOGY FOCUS - CHEMICAL ENGINEERING - Preferred Process: The potassium hydrogen tartrate is crystallized at 5-15 degrees C and 0.007-0.015 bar. Filtrate from the microfiltration of a tartar solution is added to the filtrate entering the crystallizer. Solids from the decantation and/or microfiltration step and/or mother liquors from the crystallization step are recycled, preferably added to the starting suspension.

Title Terms: CONTINUOUS; RECOVER; TARTARIC; ACID; TARTRATE; CONTAIN; MATERIAL; WASTE; PRODUCT; WINE; DECANT

Derwent Class: D16; E17

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02 A119 A960 C710 H4 H402 H482 H8 J0 J012 J1 J172 M280 M312 M321 M332 M344 M349 M381 M391 M411 M510 M520 M530 M540 M620 M630 M730 M904 M905 R06082-K R06082-S

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